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EXAMINER				
WALFORD, NATALIE K				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,625

Applicant(s)

GALLITOGNOTTA ET AL.

Examiner

NATALIE K. WALFORD

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 15, 17-23, 29-33, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 17-23, 29-33, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The Remarks, filed on November 5, 2007, has been entered and acknowledged by the Examiner. Newly added claims 35-36 has been entered. Claims 1-7, 15, 17-23, and 29-33 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-23, 29-33, and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Hilchey et al. (EP 0,675,520).

Regarding claim 17, Hilchey discloses a cathode (item 10) in figure 1, said cathode formed by a cylindrical hollow part (item 20) closed at a first end (end where item 12 is connected) and open at a second end (end where item 12 is NOT connected), wherein on an outer or inner portion of the surface of said cylindrical hollow part is present a layer of getter material (item 40 and column 7, lines 45-58), and wherein a portion of said surface near said first end of said cathode is free of said layer of getter material (see FIG. 1).

Regarding claim 18, Hilchey discloses the cathode of claim 17, wherein said cylindrical hollow part is made essentially of metal (column 5, lines 46-49).

Regarding claim 19, Hilchey discloses the cathode of claim 18, wherein said metal includes material chosen from among the group consisting of nickel, molybdenum, tantalum and niobium (column 5, lines 46-49).

Regarding claim 20, Hilchey discloses the cathode of claim 17, wherein said layer of getter material is formed of a metal selected among the group consisting of: titanium, vanadium, yttrium, zirconium, niobium, hafnium and tantalum (column 7, lines 48-51).

Regarding claim 21, Hilchey discloses the cathode of claim 17, wherein said layer of getter material is an alloy that includes zirconium or titanium combined with one or more elements selected among the group of transition metals and aluminum (column 7, lines 48-51).

Regarding claims 22-23, the claims are directed to the method of manufacturing a cathode, in view of an absence of a showing that the method imparts distinctive structural characteristics to the final product, the limitations directed to the method of manufacturing are not germane to the issue of patentability of the device.

Regarding claim 29, Hilchey discloses the cathode of claim 17, wherein a portion of said surface near said second end is at least partially covered by said layer of getter material (see FIG. 1).

Regarding claim 30, Hilchey discloses the cathode of claim 17, wherein said getter layer is present on the inner portion of the said surface (see FIG. 1).

Regarding claim 31, Hilchey discloses the cathode of claim 17, wherein said getter layer is present on the outer portion of the said surface (see FIG. 1).

Regarding claim 32, Hilchey discloses the cathode of claim 17, wherein said getter layer is present on the inner and outer portion of the said surface (see FIG. 1).

Regarding claim 33, Hilchey discloses the cathode of claim 17, wherein a portion of said surface near the second end of said cathode is free of said layer of getter material (see FIG. 1).

Regarding claim 35, Hilchey discloses a lamp in figure 1, said lamp including a glass component (item 32) and a cathode (item 10) said cathode formed of a cylindrical hollow part closed at a first end (end where item 12 is connected) and open at a second end (end where item 12 is NOT connected), wherein an outer and inner surface portion of said cylindrical hollow part includes a layer of getter material (item 40 and column 7, lines 45-58); said glass component attached to said cathode at said first end (see FIG. 1).

Regarding claim 36, Hilchey discloses a lamp in figure 1, said lamp including a glass component (item 32) and a cathode (item 10), said cathode formed of a cylindrical hollow part closed at a first end (end where item 12 is connected) and open at a second end (end where item 12 is NOT connected), wherein on an outer or inner portion of the surface of said cylindrical hollow part is present a layer of getter material (item 40 and column 7, lines 45-58), and wherein a portion of said surface near said first end of said cathode is free of said layer of getter material (see FIG. 1); and said glass component attached to said cathode at said first end (see FIG. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilchey et al. (EP 0,675,520) in view of Almer (US 3,582,702).

Regarding claim 1, Hilchey discloses a cathode (item 10) in figure 1, said cathode formed by a cylindrical hollow part (item 20) closed at a first end (end where item 12 is connected) and open at a second end (end where item 12 is NOT connected), wherein an inner surface portion of said cylindrical hollow part includes a layer of getter material (item 40 and column 7, lines 45-58), but does not expressly disclose that an outer surface portion of said cylindrical hollow part includes a layer of getter material, as claimed by Applicant. Almer is cited to show a cathode with a layer of material (item 3) that is located on the outer surface of a cylindrical hollow part (item 1). Almer teaches that getter material has gas-binding properties enhance at comparatively high temperatures.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hilchey's invention to include an outer surface portion of said cylindrical hollow part includes a layer of getter material as suggested by Almer for enhancing gas-binding properties at comparatively high temperatures.

Regarding claim 2, the combined reference of Hilchey and Almer disclose the cathode as recited in claim 1, wherein said cylindrical hollow part is made essentially of metal (Hilchey; column 5, lines 46-49).

Regarding claim 3, the combined reference of Hilchey and Almer disclose the cathode according to claim 2, wherein said metal includes material chosen from among the group consisting of nickel, molybdenum, tantalum and niobium (Hilchey; column 5, lines 46-49).

Regarding claim 4, the combined reference of Hilchey and Almer disclose the cathode as recited in claim 1, wherein said layer of getter material is formed of a metal selected among the group consisting of: titanium, vanadium, yttrium, zirconium, niobium, hafnium and tantalum (Hilchey; column 7, lines 48-51).

Regarding claim 5, the combined reference of Hilchey and Almer disclose the cathode as recited in claim 1, wherein said layer of getter material is an alloy that includes zirconium or titanium combined with one or more elements selected among the group of transition metals and aluminum (Hilchey; column 7, lines 48-51).

Regarding claims 6-7, the claims are directed to the method of manufacturing a cathode, in view of an absence of a showing that the method imparts distinctive structural characteristics to the final product, the limitations directed to the method of manufacturing are not germane to the issue of patentability of the device.

Regarding claim 15, the combined reference of Hilchey and Almer disclose the cathode as recited in claim 1, wherein said layer of getter material is less than 20 microns thick (Almer; column 4, lines 56-58).

Response to Arguments

Applicant's arguments filed November 5, 2007 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with Applicant's arguments. Regarding the Hilchey reference, the Examiner points to figure 1, which clearly shows a layer of getter material (item 40) present on an inner portion of the surface of the cylindrical hollow part, as claimed by Applicant. Even though the entire surface is not covered, the layer is still on the

surface of the inner portion. It should be noted that the Almer reference is being used to show that it is known in the art to have a getter material on the outside of a cylindrical hollow part. Also, the limitations, or lack thereof, regarding the method of manufacturing are not germane to the issue of patentability of the device. Hence, Applicant's limitations are met as set forth.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nkw
/Natalie K Walford/
Examiner, Art Unit 2879

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